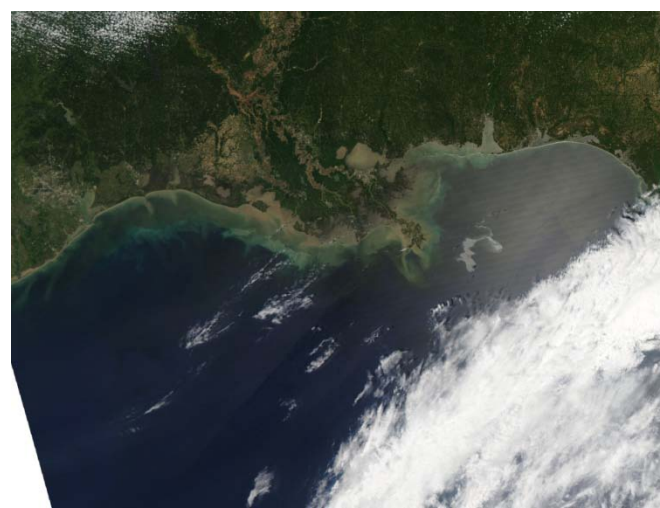


DARRP



Office of Response and Restoration • Office of Habitat Conservation • General Counsel for Natural Resources



Natural Resource Damage Assessment Overview

Presentation to the FKNMS Science Advisory Council

June 15, 2010

Tom Brosnan, NOAA Office of Response and Restoration

NRDA Topics

Overview, Process and Roles

Injuries and Restoration

Deepwater Horizon Snapshot

Summary



Tragically, oil spills happen...



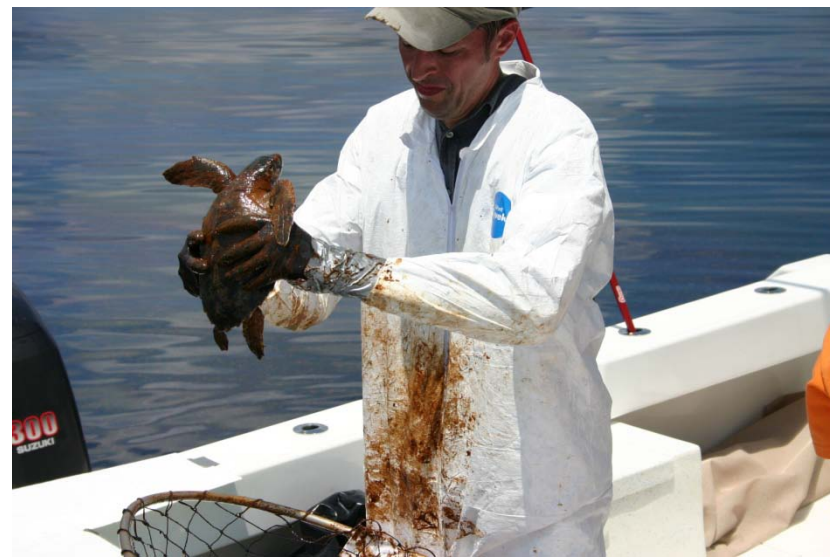
Process and Roles



- Release of oil
- Response: containment and cleanup of oil
- Injury Assessment: what was injured/lost?
- Restoration: to baseline and for interim lost resources or services/use (e.g., improvements to habitat, species, environmental quality, access, etc. -> NEXUS)

NRDA: What is it?

- A legal process to determine
 - Injuries to or lost use of the public's natural resources
 - Appropriate amount & type of restoration needed to offset losses
- Goal is to “make public whole” following release of hazardous substances & oil
- Federal, state and tribal “Trustees” represent public are required to demonstrate causality between release and resource injury and lost use





NRDA Authorities

Derived from Public Trust Doctrine



- Oil Pollution Act (OPA) (33 U.S.C. § 2704(b)(2)(A))
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. § 9607)
- Clean Water Act (CWA) (33 U.S.C. § 1321(f)(4)-(5))
- National Marine Sanctuaries Act (NMSA) (33 U.S.C. § 1443)
- Park System Resources Protection Act (16 U.S.C. § 19jj)

Per the National Contingency Plan, Trustees Are...

- State Governors
- Tribes
- Secretaries of Federal Departments
 - Agriculture
 - Commerce (NOAA)
 - Defense
 - Energy
 - Interior
- Foreign Governments (under OPA)



Co-Trustees for the Deepwater Horizon Oil Spill

Federal Trustees:

U.S. DOC – NOAA

U.S. DOI – FWS

U.S. DOI – NPS

U.S. DOI – BLM



State Trustees:

Alabama



Mississippi



Florida



Louisiana



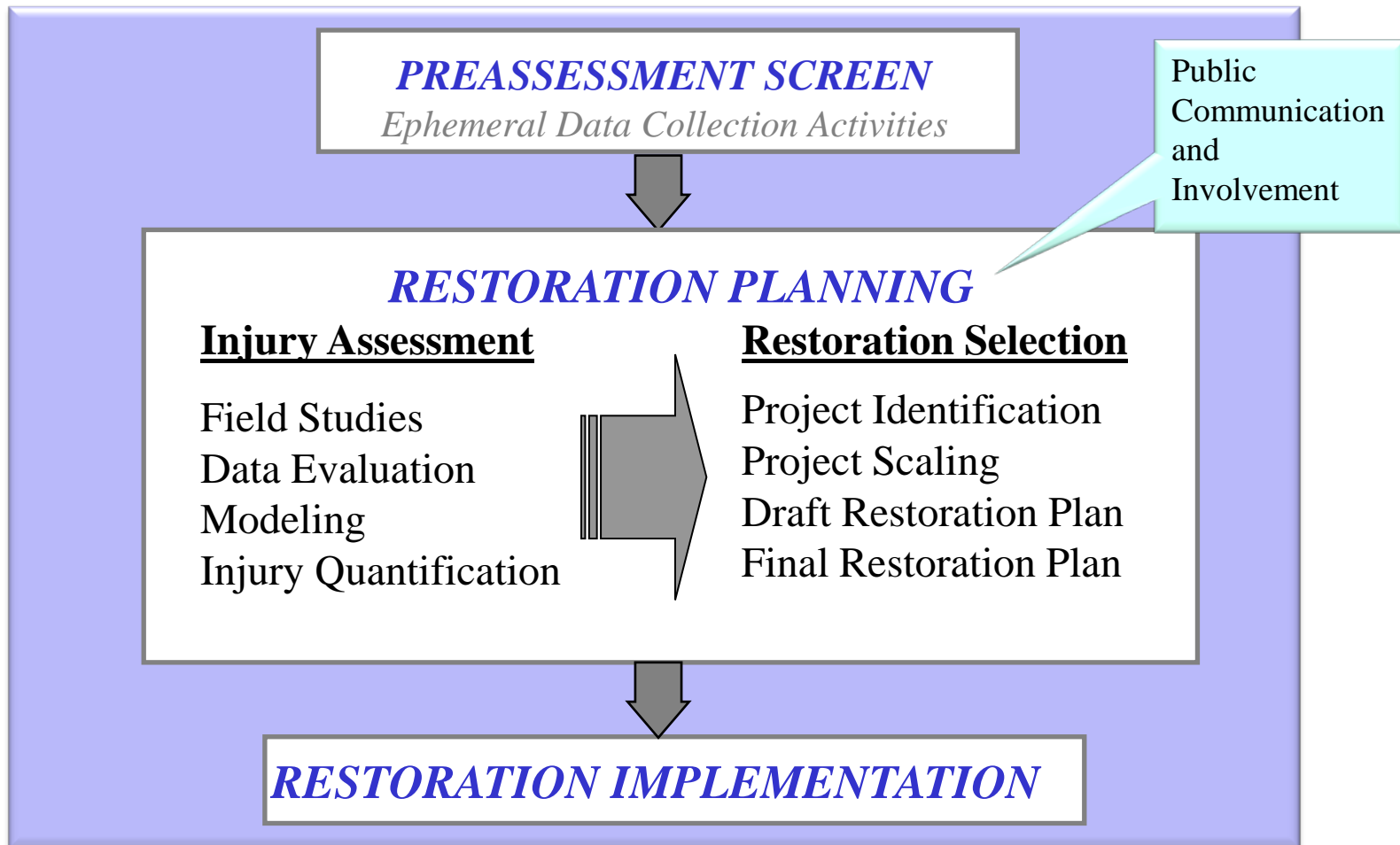
Texas



Oil Pollution Act NRDA Framework

Oil Pollution Act, 15 CFR 990

Release
↓
Pathway
↓
Exposure
↓
Injury



Injury Assessment & Restoration

- Combines scientific, economic, and legal analyses
- Claim = cost of assessment + cost of restoration



Injuries/Losses & Restoration

Resources: e.g., fish, marine mammals, turtles, birds, wildlife, etc.

Habitat: e.g., sub-tidal, inter-tidal, beach, estuarine, marsh, etc.

Lost Recreational Use: Fishing, hunting, bird watching, swimming, etc.



Focus on Restoration

- Primary Restoration
 - Actions taken to decrease injury
- Compensatory Restoration
 - Actions taken to compensate for interim losses of resources, services and human uses

NRDA Restoration Benefits Coastal Communities

NOAA's DARRP program and co-trustees have recovered ~\$500 million from responsible parties to protect and restore natural resources that have been injured by oil spills, hazardous material releases and vessel groundings.

Types of Restoration NRDA Creates

- Habitat creation and enhancement of:
 - Wetlands
 - Coral Reefs and Seagrass
 - Oysters and Other Shellfish
 - Stream Channels and Banks
 - Spawning Beds
 - Beaches
 - Waterfowl Habitat
 - Threatened/Endangered Species
- Dam removal and fish passage
- Preservation of sensitive habitats
- Invasive species removal
- Recreational projects for fishing, boating swimming, access, education
- Pollution prevention/reduction

Benefits to Coastal Communities

- Recreation: fishing, hunting, boating, swimming, diving, wildlife viewing
- Access – reconnect people to our coastal environments
- Tourism
- Protect shorelines and increase coastal resiliency
- Commercial fishing
- Commerce/navigation/ports
- Preservation of open space
- Green jobs (engineering, construction, nurseries, tourism)
- Aesthetic, remove stigma of blighted areas
- Environmental Justice

An Example of an Oil Spill NRDA in FL: Tampa Bay Oil Spill, 1993

Incident and Impact

- Over 350,000 gallons of mixed fuels spilled
- Oil fouled 13 miles of beaches
- Caused injury to birds, sea turtles, mangroves, seagrasses, salt marshes, shellfish beds, water column resources and bottom sediments.
- Recreational uses of local waterways, beaches and shellfish beds were also disrupted by the spill and necessary response actions.

Ecological Restoration

- Sea turtles: nesting beach survey program and increased enforcement of laws designed to prevent mortalities to sea turtles due to fishing
- Birdas: sponsored monofilament clean-up events and educational signs at fishing piers demonstrating proper disposal and rescue and fishhook removal from seabirds.
- Constructing dune walkovers to restore areas where foot traffic has destroyed dune habitat.
- Restoring dune vegetation.
- Restoring wetland habitat.
- Replacing sand on beaches.

Recreational Restoration

- Building new and rehabilitating older fishing piers.
- Building new and replacing old public boardwalks and walkways along recreational beaches, shoreline habitats, and within public parks and preserves.
- Reconstructing a deteriorating boat ramp.
- Creating new oyster reef habitat.



Current NRDA Activities for DWH

- In this Preassessment Phase, several technical working groups (TWGS) have formed, composed of State and Federal natural resource trustees and the RP .
- The TWGs continue to develop and implement baseline and post-impact field studies for multiple resource categories:
 - Water Column –fate and transport
 - Fisheries and Plankton
 - Submerged Aquatic Vegetation
 - Shoreline habitats (beaches, wetlands, mudflats, mangroves)
 - Subtidal habitats
 - Shallow and Deepwater Corals
 - Birds
 - Marine Mammals and Turtles
 - Terrestrial Wildlife
 - Human Uses : for example, fishing, hunting, and beach recreational closures.
- Sample collection includes water, sediment and tissues for chemical analyses
- Data are being collected via land and ship-based sampling and aerial surveys
- The trustees may also assess potential impacts from the response, including dispersant use at the surface and at depth.



Pre-oil/baseline Data Collection

NOAA | National Ocean Service | National Centers for Coastal Ocean Science

Deepwater Horizon Spill Response - Mussel Watch

Kilometers
0 25 50 100 150 200 250

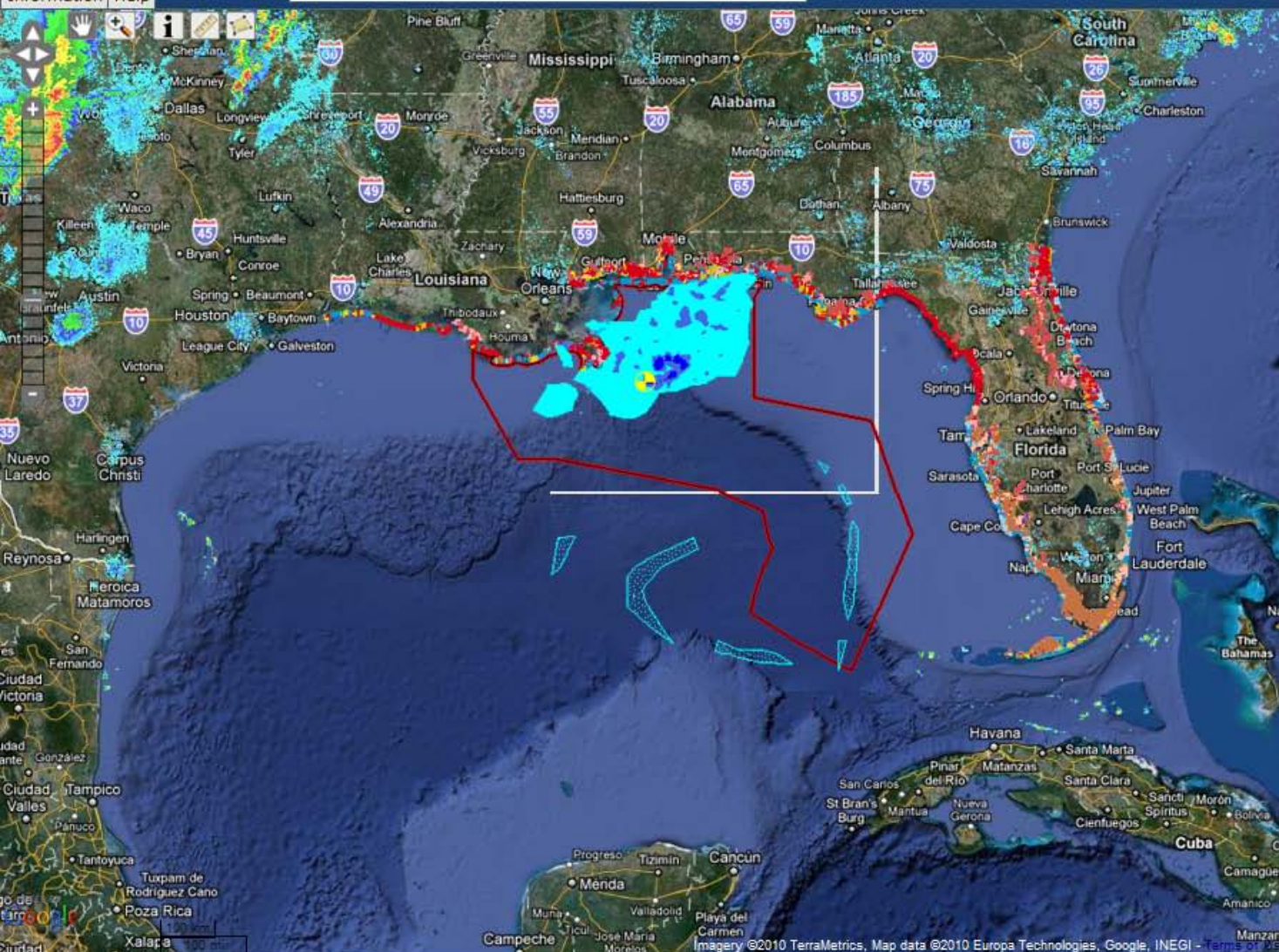


Legend

-  NOAA | Mussel Watch Sites Collected for DWH Response
-  NOAA | Mussel Watch Sites

A partnership response between
NOAA's National Ocean Service
NOAA's National Marine Fisheries Service,
and Louisiana State University, Louisiana
Department of Fish & Wildlife, and the
MOTE Marine Laboratory





Layers

- ☒ Background
- ☒ Response Planning
- ☒ BP Deepwater Horizon Oil Spill
- ☒ Bioresources
 - ☒ Habitat Areas [Coastal Resources]
 - ☒ Critical Habitat Areas
 - ☒ Managed Areas
 - ☒ Environmental Sensitivity Index (ESI) LA
 - ☒ Environmental Sensitivity Index (ESI) AL
 - ☒ Environmental Sensitivity Index (ESI) MS
 - ☒ Environmental Sensitivity Index (ESI) FL
 - ☒ Environmental Sensitivity Index (ESI) TX
- ☒ Environmental Quality Baseline Data
- ☒ Charts, Surveys, Ships
- ☒ Restoration
- ☒ Current Weather
- ☒ Weather Forecasts
 - ☒ Wind
 - ☒ Wave
 - ☒ Precipitation
 - ☒ Currents (NWS-NCEP)
- ☒ Data Buoys & Observations
- ☒ Sea Floor Maps [Bathymetry]
- ☒ Base
- ☒ Public Safety/Infrastructure

In Summary, Three Things...

- NRDA is Restoration-focused
 - Purpose is to determine type and amount of restoration needed to compensate the public for injuries to and lost use of their natural resources
 - Restoration is considered early and throughout the process
 - Injuries and losses are balanced against, and directly scaled to restoration
- NRDA is a Legal Process
 - Guided by Oil Pollution Act and NOAA Regulations
 - Trustees are required to demonstrate causality between release and resource injury and lost use
 - The polluter pays for assessment and restoration
- Getting to restoration requires a common vision and coordination with the response, co-trustees, the Responsible Party and the public

DARRP



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For More Information...

- www.darrp.noaa.gov
- www.darrp.noaa.gov/economics/index.html
- www.response.restoration.noaa.gov/DeepwaterHorizon
- www.geoplatform.gov/gulfresponse/
- www.fws.gov/contaminants



Overview of Natural Resource Statutes/Provisions

M.E. Rolle

NOAA Office of General Council for Natural Resources.

Natural Resource Statutes/Provisions

- To make the public and environment whole for injury to natural resources and their services
 - Liability—Responsible Party pays
 - Restoration-based compensation (Remedial focus, not punitive)

Major NRD Statutes

- Clean Water Act (CWA) (33 U.S.C. § 1321(f)(4)-(5))
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. § 9607)
- National Marine Sanctuaries Act (NMSA) (33 U.S.C. § 1443)
- Oil Pollution Act (OPA) (33 U.S.C. § 2704(b)(2(A))
- Park System Resources Protection Act (16 U.S.C. § 19jj)

NMSA § 312

- Liability for natural resource damages:
Any person who destroys, causes the loss of, or injures any sanctuary resource is liable to the United States for the following categories:
 - Response costs
 - Damages resulting from the destruction of the sanctuary resources
- Liability: Strict, Joint and Several

- Under NMSA, Damages is defined to include:
 - The cost of replacing, restoring, or acquiring the equivalent of the sanctuary resource
 - The value of the lost use of the sanctuary resource pending its restoration or replacement or the acquisition of an equivalent sanctuary resources
- Damage assessment costs under NMSA:
 - The reasonable costs of monitoring the injured, restored, or replaced resources
 - The cost of curation and conservation of cultural resources
 - The cost of enforcement actions undertaken by the Secretary

Overlapping Authorities

- OPA, NMSA, PSRPA, CWA—all have NRDA provisions that may exist at the same time for the same injury to the same resources
- Not identical, may have separate drawbacks or benefits (OPA—liability limitation, Fund/NMSA—geographic scope, broader resource application
- Reinforces intent of Congress to make public whole for the loss of resources
- Effort led by coordinated and cooperative effort under the primary statute (OPA).